



**Perceived Organizational Support and Knowledge Sharing:
Employees' Self-Construal Matters**

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Abstract

HR professionals are expected to become more involved in knowledge management and facilitate knowledge sharing among employees in the knowledge economy. In this study, we investigated the relationship between perceived organizational support and knowledge sharing by taking account of employees’ interdependent and independent self-construal. Our hypotheses were examined using a 2-wave survey data set from 145 teachers working at 4 Dutch vocational education and training schools. The results showed that perceived organizational support was positively related to knowledge sharing for employees either with a high interdependent self or with a low independent self. However, this positive relationship disappeared for employees either with a low interdependent self or with a high independent self. Overall, the moderating effect of self-construal revealed a new avenue towards a better understanding of the relationship between organizational support and employees’ knowledge sharing. It provided a tentative answer to the question of why organizational support does not often succeed in motivating employees to share their knowledge in the workplace.

Keywords: Self-Construal, Knowledge Sharing, and Perceived Organizational Support

Perceived Organizational Support and Knowledge Sharing:

Employees' Self-Construal Matters

To maintain a competitive advantage, organizations must stay ahead in creating and transferring knowledge within their unit (Cabrera & Cabrera, 2002; Collins & Smith, 2006; Wang & Noe, 2010). Under this circumstance, HR professionals are often called to become more involved in knowledge management and to take on the role of knowledge facilitator to manage employee knowledge sharing in the workplace. Knowledge sharing refers to a process in which employees mutually exchange knowledge and jointly create new knowledge (Van den Hooff & De Ridder, 2004). It is one of the key components of knowledge management and contributes significantly to the sustained competitive advantage of an organization (King & Marks, 2008; Wang & Noe, 2010). Through knowledge sharing, organizations can use and optimize the knowledge resources of their employees, which will help to distinguish the organization from its competitors and secure its long-term survival. Empirical evidence shows that knowledge sharing can reduce production costs (Arthur & Huntley, 2005), increase the completion speed in new product development (Collins & Smith, 2006), strengthen firm innovational capabilities (Cabrera & Cabrera, 2002), and improve team performance (Mesmer-Magnus & DeChurch, 2009).

Knowledge sharing, however, cannot be taken for granted in the workplace, because it does not always occur automatically among employees (Bunderson & Reagans, 2011; Cabrera & Cabrera, 2002; Foss, Minbaeva, Pedersen, & Reinholt, 2009). Two psychological perspectives have been used to explain why employees tend not to share knowledge in the workplace. From the cognitive perspective, knowledge is often highly personal and not easily expressed, thus making it difficult to share with others (Haldin-Herrgard, 2000; Holste &

Fields, 2010; Kogut & Zander, 1992). From the motivational perspective, knowledge sharing often creates a dilemma for employees: by sharing knowledge, employees may gain expert status and receive praise from the management. The shared knowledge, however, reveals the secrets of the contributor’s competitive edge and makes the employees more vulnerable in a competitive work environment (Bunderson & Reagans, 2011; Cabrera & Cabrera, 2002; Gagné, 2009). In this regard, organizational support is necessary to encourage employees to share knowledge (e.g., Bartol, Liu, Zeng, & Wu, 2009; Swift & Virick, 2013; Wang & Noe, 2010).

In this paper, we build on the concept of self-construal to gain a better understanding of the relationship between organizational support and knowledge sharing. Self-construal, also called self-identity or self-concept, describes a “constellation of thoughts, feelings, and actions concerning one’s relationship to others” (Singelis, 1994, p. 581). Generally, it refers to the way in which individuals view themselves and define their self-concept with reference to their social roles, groups, and relationships (Markus & Kitayama, 1991; Turner & Onorato, 1999). With interdependent self-construal, individuals tend to see themselves as connected to others. Self is part of encompassing social relationships. By contrast, with independent self-construal, individuals tend to view themselves as a unique entity. Self in this view is separated from social contexts (Singelis, 1994). Interdependent self-construal and independent self-construal are among the most general and overarching schemata of individuals’ self-system and have profound consequences for their cognition, motivation, and behavior (e.g. Johnson, Chang, & Yang, 2010; Johnson & Saboe, 2011; Markus & Kitayama, 1991; Yang, Sanders, & Bumatay, 2012). We thus believe that the interdependent versus the independent view of the self may help to provide a clearer understanding of the relationship between the organizational support perceived by employees and their knowledge-sharing behavior.

By integrating the concept of self-construal into the relationship between perceived organizational support and knowledge sharing, this study makes at least two contributions to the literature on knowledge sharing and HRM. First, interdependent self-construal and independent self-construal clarify some inconsistent findings regarding the relationship between perceived organizational support and knowledge sharing presented in previous studies. For example, Bartol et al. (2009) reported that perceived organizational support had a positive relationship with knowledge sharing. Swift and Virick (2013), however, found a non-significant relationship between these two concepts. To reconcile these inconsistencies across empirical studies, research calls for the incorporation of more meaningful concepts into the relationship between organizational support and knowledge sharing (Bunderson & Reagans, 2011; Wang & Noe, 2010). In connection with the function of self-construal mentioned above, we expect that employees' interdependent self-construal and independent self-construal may be particularly valuable in helping us to clarify these inconsistencies and offer a better understanding of why organizational support does not always succeed in stimulating employees' sharing of their knowledge.

Second, the concept of self-construal brings a new perspective to the understanding of the dilemma that employees face in engaging in knowledge sharing in the workplace. Self-construal regulates the way in which individuals communicate and interact with each other (Hogg & Reid, 2006). This concept has been associated with several employee workplace attitudinal and behavioral outcomes: organizational commitment (Johnson, Selenta, & Lord, 2006), conflict-handling strategies (Oetzel, 1999), leadership (Hackman, Ellis, Johnson, & Staley, 1999), and workplace learning (Van Rijn, Yang, & Sanders, 2013). This important concept, however, has not been explored well in the literature on knowledge sharing. On the other hand, knowledge sharing by nature is about how employees communicate information and interact with each other in the workplace (Wang & Noe, 2010). Thus, there is a

knowledge gap in understanding knowledge sharing via the perspective of self-construal. By incorporating the concept of self-construal into the relationship between organizational support and knowledge sharing, we fill this knowledge gap and offer the self-identity perspective to understand knowledge sharing.

In the next section, we first review the previous studies examining the relationship between organizational support and knowledge sharing. On the basis of this review, we reason how the concept of self-construal can help to clarify the inconsistent findings between perceived organizational support and knowledge sharing. Next, we test our hypotheses with a data set collected from a 2-wave survey including 145 teachers in the vocational education sector in the Netherlands. The paper concludes by discussing the theoretical and practical implications of the findings.

Relationship between Perceived Organizational Support and Knowledge Sharing

Organizational support is one of the most influential forms of management support that have conventionally been discussed in the literature on knowledge sharing (Wang & Noe, 2010). Given that the focus of this paper is on understanding the psychological mechanism of knowledge sharing, we highlight employees’ perceptions of the support from their organization—perceived organizational support, which refers to employees’ beliefs that the organization values their contributions and cares about their general well-being (Eisenberger, Huntington, Hutchison, & Sowa, 1986; Rhoades & Eisenberger, 2002). It is worthwhile noting that perceived organizational support is an individual-level construct, capturing individual employees’ subjective perceptions of being cared for and valued by their organization (Swift & Virick, 2013).

Social exchange theory (Blau, 1964) and the norm of reciprocity (Gouldner, 1960) offer theoretical explanations for the relationship between perceived organizational support and knowledge sharing (Bartol et al., 2009; Swift & Virick, 2013; Wang & Noe, 2010): when

employees perceive that their organization appreciates their contributions and treats them favorably (e.g., job conditions, pay rewards, and promotion), they will feel obliged to reciprocate these favors by caring about the organization's welfare and working towards the organization's goals (Rhoades, Eisenberger, & Armeli, 2001). Knowledge sharing in this case can be considered as one of the goals advocated by the organization. Perceived organizational support is then expected to have a positive relationship with knowledge sharing (Wang & Noe, 2010).

This sound assumption, however, has not been fully supported by the empirical findings. Using a survey and collecting data from 255 professionals working in the information technology industry in Mainland China, Bartol et al. (2009) found that perceived organizational support overall had a positive relationship with knowledge sharing. In particular, this relationship was moderated by employees' perceived job security. If we consider job security as a special form of organizational support, their findings suggest that perceived organizational support in general and perceived job security in particular play a significant role in facilitating knowledge sharing. Swift and Virick (2013) used the same research method—a questionnaire survey—and almost identical items to measure perceived organizational support (actually, the scales in both studies were adopted from the 1986 work by Eisenberger and colleagues). However, they did not find a significant relationship between perceived organizational support and knowledge sharing. They collected data from 55 professionals working in a consulting firm and 152 professionals working in a mental health organization in the United States. They reported that perceived organizational support neither by itself nor in combination with knowledge tacitness had a significant relationship with knowledge sharing. These inconsistent findings suggest that the function of perceived organizational support for knowledge sharing may be subject to boundary conditions. It is highly possible that the positive relationship between perceived organizational support and

knowledge sharing holds true only in certain circumstances and/or for certain types of employees. The challenge at hand is to integrate meaningful concepts to clarify and refine this relationship.

Moderating Effect of Self-Construal on the Relationship between Perceived Organizational Support and Knowledge Sharing

Research has shown that self-construal by itself or in combination with other concepts has a profound influence on individuals’ cognition, emotions, and behaviors (e.g., Johnson et al., 2006; Johnson & Saboe, 2011; Markus & Kitayama, 1991; Yang et al., 2012). Interdependent self-construal guides individuals to see themselves as connected to the in-groups to which they belong (e.g., their team and organization). Social motives (e.g., belonging to and fitting into a social group, promoting the common goals of the social group, and maintaining harmony with the in-group members) are important for individuals with interdependent self-construal. They enhance their self-esteem and make them feel good and satisfied (Downie, Koestner, Horberg, & Haga, 2006). By contrast, individuals with independent self-construal are motivated to work towards self-enhancement and self-achievement. They strive for excellence, which has meaning for them personally rather than fulfilling the expectations of their in-groups (Singelis, 1994).

Interdependent self-construal and independent self-construal are often presented in theory as two contrasting concepts. However, in reality they are not two opposite ends of the same continuum; rather, they co-exist within each individual. Everyone has both the interdependent and the independent self-construal. However, individuals tend to use one form more than the other to guide their cognition, emotion, and behavior (Gudykunst & Lee, 2003; Markus & Kitayama, 1991). This consideration implies that interdependent self-construal and independent self-construal are best treated and measured as two separate and independent

constructs. Their functions for individuals' behaviors thus need to be examined independently.

It is also worthwhile noting that interdependent self-construal and independent self-construal have both state-like (e.g., varying across contexts and environments) and trait-like (e.g., varying across individuals) properties (Gudykunst & Lee, 2003; Johnson et al., 2006). For the state-like properties, self-construal is considered to be fluid and changeable over time and situations within each individual. This way of treating self-construal highlights the activation process (e.g., how do situational or contextual factors trigger or make independent or interdependent self-construal salient in one's self-system?). For the trait-like properties, self-construal is solid and fixed, indicating stable differences among individuals' self-schema that are shaped by individuals' learning histories and social and cognitive development (Markus & Kitayama, 1991). It varies across individuals but is relatively time-invariant within each individual. The emphasis in this treatment concerns the question of why individuals behave differently despite being placed in similar situations. This trait-like view enables us to explain better why the relationship between organizational support and knowledge sharing varies across different types of employees. We thus adopt the trait-like perspective to view self-construal in this paper.

The moderating effect of self-construal on the relationship between perceived organizational support and knowledge sharing can be understood from two perspectives. First, individuals with interdependent self-construal are more sensitive to the common goals of their in-groups than those with independent self-construal. The common good of the group and the fulfillment of their responsibilities as group members thus constitute stronger motivation for individuals with an interdependent self than for those with an independent self (Johnson et al., 2010; Yang et al., 2012). When employees perceive support from their organization, those with an interdependent self will feel even more obliged to reciprocate

their organization’s favor and help it to achieve its goals than those with an independent self. In contrast, employees with an independent self tend to view organizational support as a means to achieve their personal goals; thus, they are less concerned with their obligations towards their organization than their counterparts with an interdependent self. When they perceive support from their organization, they will feel less of an urge to return the favor and assist their organization in reaching its goals.

Second, Bunderson and Reagans (2011) suggested that collective goals related to collective improvement are one of the prerequisites for knowledge sharing and collective learning in organizations. The interdependent and the independent self-construal may function differently in regulating collective goals across individuals. Influenced by their strong social motives and the desire to fit in with their in-groups, it is much easier for employees with interdependent self-construal to recognize collective goals and act in an appropriate way to promote collective interests than for those with independent self-construal. In other words, employees with interdependent self-construal are better prepared to engage in knowledge-sharing activities than those with independent self-construal. With this consideration, perceived organizational support can be considered as a trigger that ignites knowledge-sharing behavior more easily among employees with interdependent self-construal than among those with independent self-construal. We expect the relationship between perceived organizational support and knowledge sharing to be moderated by employees’ self-construal. Specifically, we propose:

Hypothesis 1: The relationship between perceived organizational support and employees’ knowledge sharing becomes more positive for employees who have high interdependent self-construal than for those who have low interdependent self-construal.

Hypothesis 2: The relationship between perceived organizational support and employees' knowledge sharing becomes more negative for employees who have high independent self-construal than for those who have low independent self-construal.

Method

Organizational Context

The research took place at four vocational education training (VET) schools in the Netherlands. VET schools offer an alternative path to general secondary education. Similar to the educational contexts in most western countries, large-scale educational changes are taking place in the Netherlands. VET schools are increasingly being held accountable for student outcomes. More and more human resource practices are implemented as a means to enhance teachers' quality, motivation, and performance (Runhaar & Sanders, 2013). Knowledge sharing as a way to enhance teachers' performance has been documented in many HR policies. For example, in the HR documents from one of the VET schools in our sample, it is stated that "Knowledge sharing is one of the key competencies of teachers" and "The school is dedicated to facilitate the exchange of knowledge among teachers at all levels."

Within each VET school, individual employees were clustered into teams to undertake teaching tasks (e.g., teaching teams for the courses of health care, social work, and engineering) and administrative functions (e.g., teams for teaching quality control, student support, finance, and expenses). The team size ranged from 3 to 14 members. A team leader/supervisor usually took responsibility for coordinating and/or supervising the team work. Team leader and supervisor were used interchangeably in different VET schools. As in most organizations, team members used both formal meetings and informal occasions (such as coffee breaks and corridor chats) to engage in discussions and knowledge-sharing

activities. By exchanging information and sharing knowledge, team members were able to identify problems better, track updates concerning classroom or school issues efficiently, and find innovative and effective solutions.

Respondents

Our final sample consisted of 145 participants from 4 VET schools. The participants' mean age was 50 years, ranging from 22 to 63 years. Of the 145 participants, 104 (71.7%) were male. Regarding their current job position, 86.9% were teachers, 7.6% were instructors, and 5.5% had another function (e.g., mentor, examiner, or project leader). As for their working experience, 21.6% had worked for less than 2 years; 14.4% had worked between 2 years and 5 years; 18% had worked between 5 years and 10 years; and 46% had more than 10 years of working experience. Regarding their educational level, 66.5% had a bachelor's degree, 21.6% had a master's degree, 7.0% had received vocational training, and 4.9% had received an alternative education.

Procedure

The data used for this paper were taken from a project aiming at "understanding VET employees' professional development." The participants took part in the surveys on a yearly basis for three years from 2010 to 2013. The data collection was managed via a joint effort of three research teams in the Netherlands. To avoid lengthy questionnaires, each research team was given a quota for the items to be included. Subject to this practical limitation, we had to separate the measures of individual differences (e.g., self-construal) and the contextual measures (perceived organizational support) into two waves. The measure of self-construal was included in the first wave, in which we viewed self-construal as trait-like properties, which are stable and time-invariant among employees. The measures of self-construal capture idiosyncratic individual differences rather than a state of mind primed by situations. We placed the measures of perceived organizational support and knowledge sharing in the second

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3 wave, as the time interval between data collection waves was about a year and team members
4 may change their team and even their organization during such a long period. By collecting
5 those two types of data in the same wave, we avoided this adverse effect.
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9 Regarding the procedure for data collection, the research teams first contacted the
10 human resource (HR) managers and research heads of the VET schools for participation.
11 After the VET schools had expressed their willingness to participate, an invitation was sent to
12 the line managers, who in turn passed it on to the teaching staff. The line managers provided
13 us with the email addresses of the employees who were willing to participate in this study.
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17 In the first wave of data collection, the questionnaire package was distributed to 711
18 participants who expressed their interest in our study; 323 participants returned the
19 questionnaire (response rate = 45.4%). The measures of interdependent and independent self-
20 construal were included. In the second wave of data collection, another questionnaire package
21 was sent to those 323 participants. In total 145 participants corresponded, completed, and
22 returned the questionnaires (response rate = 44.9%). This second questionnaire included the
23 measures of perceived organizational support and knowledge sharing. The final data set used
24 in this study consisted of 145 participants.
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28 Participants could fill in the questionnaire during both work and leisure time. In the
29 introduction of the questionnaire, we assured the participants that their responses would be
30 kept confidential.
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33 Measures

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35 All the items were measured using a five-point Likert scale (1 = *strongly disagree* to 5
36 = *strongly agree*). Table 1 lists all the items used in this study.
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40 Knowledge sharing was measured with five items. The scale was adopted from Van
41 Woerkom's work (2003; Van Rijn et al., 2013). We reworded the items to reflect knowledge
42 sharing in the VET setting. The items are: "I share my knowledge and experiences with my
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colleagues on a regular basis”; “I share my problems about my classroom teaching with other colleagues”; “I discuss with my colleagues our criteria that we use to function well”; “I participate in the group discussion on the topics that are important to my job”; and “I share the issues related to my development with my colleagues.” The Cronbach’s α of this scale was .83.

Perceived organizational support was measured with five items. The scale was developed by Eisenberger et al. (1986). An example item is: “The school cares about my opinions.” The Cronbach’s α of this scale was .90.

Interdependent self-construal and independent self-construal were measured using six items each. The scales were developed by Vos (2009). The psychometric properties of these two scales have been verified in different samples and across different national cultures (e.g., Van Rijn et al., 2013; Vos & Van der Zee, 2011; Yang et al., 2012). An example of interdependent self-construal is “I like to describe myself as a member of the group to which I belong” (Cronbach’s α = .83). An example of independent self-construal is “I think I am a unique individual with unique attributes” (Cronbach’s α = .71). In this project we viewed self-construal in terms of trait-like properties, meaning that it is time-invariant and captures idiosyncratic individual differences among individuals.

The demographic information collected from the surveys included gender (0 = female, 1 = male), age (in years), working experience (1 = less than half a year, 2 = half a year, 3 = one year, 4 = two years, 5 = five years, 6 = ten years, 7 = twenty years, 8 = more than twenty years), and educational level (0 = something else, 1 = vocational education, 2 = bachelor’s degree, 3 = master’s degree and above).

Data Analysis

Our research model concerns four variables: an independent variable (perceived organizational support), an outcome variable (knowledge sharing), and two moderating

variables (interdependent self-construal and independent self-construal). We first conducted confirmatory factor analyses (CFAs) to verify the structure of the measures and assess the convergent and discriminant validity of the constructs.

In all 4 VET schools, individual teachers were clustered into teams, meaning that the individual-level data collected in our study were nested in a higher team level. This data structure required us to separate the “fixed” effects (the individual-level variance) from the “random” effects (the team-level variance) in testing the hypotheses (Raudenbush & Bryk, 2002), despite our theoretical concerns only being at the individual level. We checked the intra-class correlation (ICC1) (Bliese, 2000) for knowledge sharing, which was .19 (see the empty model: Model 1 in Table 2), meaning that 19% of the total variance of knowledge sharing can be explained by the team-level differences and 81% of the variance can be explained by individual differences. This relatively high ICC1 of knowledge sharing again justifies the multi-level analysis. In the multi-level analysis, the three predictors (perceived organizational support, interdependent self-construal, and independent self-construal) were all at the individual level. They were specified as fixed effects. Only “Team ID” and “Intercepts” were included as random effects. The predictors were grand-mean-centered to permit the use of multiplicative interaction terms without generating troublesome multicollinearity (Bickel, 2007).

We compared four models. Model 1 was the empty model in which the total variance of knowledge sharing was partitioned at the individual and team levels. Model 2 controlled for the demographic variables (gender, age, and educational level). Model 3 examined the main effects of perceived organizational support and interdependent and independent self-construal. Model 4 further tested the two interaction effects. The results are presented in Table 3.

Results

Confirming the Structure of the Measures

We conducted confirmatory factor analyses (CFAs) using LISREL 8.8 to check the structure of the measures. We first checked the structure of the two types of self-construal. The fit indices for the two-factor model were satisfactory: $\chi^2 (50) = 64.32$; $p\text{-value} = .08$; $GFI = .93$; $NNFI = .95$; $CFI = .96$; $RMSEA = .04$; and $RMR = .07$. However, when all the items were constrained to load on one factor of “self-construal,” the fit indices became worse: $\chi^2 (51) = 128.12$; $p\text{-value} < .05$; $GFI = .87$; $NNFI = .85$; $CFI = .89$; $RMSEA = .10$; and $RMR = .10$. The significant χ^2 change, $\delta \chi^2 (1) = 63.80$, $p < .01$, indicated a better fit for the two-factor model than for the one-factor model.

We checked the convergent and discriminant validity of the measures against the criteria suggested by Bagozzi and Yi (1988). The results are shown in Table 1. For the convergent validity, the factor loadings from each indicator on the latent construct were all above .50 and significant at $p = .05$ with one exception in the scale of independent self-construal (item 6: “It is important for me to do my own thing”; $\lambda = .45$). Each latent construct in the model had composite reliability above the recommended cut-off criterion of .60. These findings showed good convergent validity of the measures. For the discriminant validity, the AVEs for each latent construct were above .50 and all the values for $(AVE - r^2)$ were positive, satisfying the criteria for discriminant validity.

-----Insert Table 1 about here-----

Descriptive Statistics

Table 2 reports the means, standard deviations, and inter-correlations of the relevant variables. Knowledge sharing was positively related to perceived organizational support ($r = .26$, $p < .01$) and to interdependent self-construal ($r = .17$, $p < .05$) but not to independent

self-construal ($r = .03, ns$). Perceived organizational support was positively related to interdependent self-construal ($r = .24, p < .01$) but not to independent self-construal ($r = -.13, ns$). Independent self-construal and interdependent self-construal were not significantly correlated with each other ($r = .14, ns$).

In addition, we observed that gender was positively related to perceived organizational support ($r = .20, p < .05$), suggesting that male employees had a stronger perception of organizational support than female employees. Employees' educational level was negatively related to perceived organizational support ($r = -.19, p < .05$). In a further analysis, we controlled for age, gender, and educational level.

-----Insert Tables 2 and 3 about here-----

Hypothesis Testing

The results of the hypothesis testing are presented in Table 3. Model 1 was the “empty” model and justified the necessity for multi-level analyses. In Model 2, we added the controls—gender, educational level, and age—to the equation. Age was positively related to knowledge sharing ($b = .02, p < .05$). In Model 3, perceived organizational support, interdependent self-construal, and independent self-construal were included in the equation. Perceived organizational support was significantly related to knowledge sharing ($b = .11, p < .05$). Neither interdependent self-construal ($b = .04, ns$) nor independent self-construal ($b = .06, ns$) showed a significant relationship with knowledge sharing. The model fits were significantly improved from Model 2 to Model 1 ($\Delta\chi^2 = 32.17, \Delta df = 3, p < .01$) and from Model 3 to Model 2 ($\Delta\chi^2 = 11.76, \Delta df = 3, p < .01$).

Hypotheses 1 and 2 proposed that interdependent and independent self-construal would moderate the relationship between perceived organizational support and knowledge sharing.

The two interaction terms (perceived organizational support * interdependent self-construal and perceived organizational support * independent self-construal) entered the equation in Model 4 to test these two hypotheses. The findings showed that the interaction effects between perceived organizational support and interdependent self-construal ($b = .10, p < .05$) and between perceived organizational support and independent self-construal on knowledge sharing ($b = -.09, p < .05$) were both statistically significant. The model fit was also significantly improved from Model 4 to Model 3 ($\Delta\chi^2 = 6.55, \Delta df = 2, p < .05$). These findings are in line with H1 and H2.

We depict the two interaction effects in Figures 1 and 2. Figure 1 shows that, for high interdependent self-construal, the relationship between perceived organizational support and knowledge sharing was significantly positive ($b_{simple\ slope} = .17, p < .05$). However, for low interdependent self-construal, the positive relationship between perceived organizational support and knowledge sharing became non-significant ($b_{simple\ slope} = .03, ns$). The difference between the two simple slopes was statistically significant ($t = 3.13, p < .05$). These results support H1.

Figure 2 mirrors Figure 1, showing that the relationship between perceived organizational support and knowledge sharing was positive for low independent self-construal ($b_{simple\ slope} = .18, p < .05$). For high independent self-construal, the positive relationship became non-significant ($b_{simple\ slope} = .06, ns$). The difference between the two simple slopes was again statistically significant ($t = 2.87, p < .05$).

----Figures 1 and 2 about here----

Discussion

Previous studies have suggested that it is necessary to include some meaningful concepts to clarify and refine the relationship between perceived organizational support and

knowledge sharing (e.g., Bartol et al., 2009; Cabrera, Collins, & Salgado, 2006; Lu, Leung, & Koch, 2006; Swift & Virick, 2013). In response to this call, we integrated the concept of self-construal into this relationship. Our findings confirm that self-construal adjusts this relationship: the relationship between perceived organizational support and knowledge sharing becomes more positive for employees either with high interdependent self-construal or with low independent self-construal. This relationship becomes neither positive nor negative for employees with low interdependent self-construal or high independent self-construal. Overall, these findings support our research assumption that self-construal is a meaningful concept in clarifying the relationship between organizational support and knowledge sharing among employees. Below we discuss the theoretical and practical implications of these findings and then point out the limitations of this study and make some suggestions for future research.

Theoretical Implications

First, the moderating effect of self-construal offers an alternative explanation to the inconsistent findings in previous studies regarding the relationship between perceived organizational support and knowledge sharing. When re-inspecting the studies that reported a positive relationship between (perceived) organizational support and knowledge sharing (Bartol et al., 2009; Chen & Huang, 2007; Lu et al., 2006), we found that most of these studies were conducted in the Chinese cultural context and surveyed Chinese employees. In contrast, the studies that reported a non-significant relationship or failed to replicate the positive relationship were conducted in the US and surveyed US employees (King & Marks, 2008; Swift & Virick, 2013). As is known, national culture plays an import role in shaping individuals' self-construal; that is, interdependent self-construal is prevalent in collectivistic cultures and independent self-construal is predominant in individualistic cultures (Brewer & Chen, 2007; Markus & Kitayama, 1991). It makes sense to expect that Chinese employees

might have stronger interdependent self-construal than US employees. This could explain why the positive relationship between perceived organizational support and knowledge sharing has only been supported in the Chinese cultural context and not in that of the US. Note that our study was conducted at the individual level and focused on employees' self-construal. Given the fact that self-construal is one of the fundamental elements of the cultural dimension of individualism–collectivism (Triandis, 1995), we recommend taking individualism–collectivism into account in future research and examining how the relationship between perceived organizational support and knowledge sharing may vary across national cultures. This approach might begin to unfold the effect of culture on knowledge sharing.

Second, our findings provide a deeper understanding of how organizational support facilitates knowledge sharing. Our results suggest that independent self-construal neutralizes or dilutes the positive relationship between perceived organizational support and knowledge sharing. At first glance, these findings seem to indicate that organizational support is not important in motivating knowledge sharing among employees with high independent self-construal. However, we will gain a different and much better understanding of this relationship when we interpret these findings in combination with the underlying theories of social exchange (Blau, 1964) and the norm of reciprocity (Gouldner, 1960). Employees with high independent self-construal focus on their own achievement and enhancement. It is more likely that they will perceive and understand organizational support as a way to help them to fulfill their personal goals. They are thus less responsive to the reciprocal relationship between employees and organizations. They feel less obliged to return the favor that their organization offers to them. However, this does not mean that organizational support is not important to them. The crucial issue is how organizations can reinforce the reciprocal relationship between organizational support and employees' outcomes for those with high

independent self-construal. A better solution might be to signify and explicate the link between organizational support and employees' personal growth. This process could create stronger liability for those employees with high independent self-construal towards their organization, which in turn could motivate them to return the favor by adopting the desired workplace behaviors, such as knowledge sharing. In summary, to motivate employees with high independent self-construal to share their knowledge, our findings suggest that organizations not only need to provide support but also need to help them to understand the purpose of the support.

Third, the moderating effect of self-construal suggests a new perspective in understanding knowledge-sharing behavior. Although we view self-construal from the trait perspective and consider it as an individual-difference variable, the concept itself by nature is different from those personality traits and motivational factors (Johnson et al., 2010; Singelis, 1994). In comparison with the personality traits that highlight how individuals present themselves externally, self-construal focuses more on how individuals view themselves internally (Brewer & Gardner, 1996; Cross & Madson, 1997). Compared with the motivational factors (e.g., self-efficacy and learning goal orientation) that are often triggered by situations (Lu et al., 2006; Swift et al., 2010), self-construal has a long-lasting and stable effect on a person's attitudes and behavior. It is shaped more by abstract/indirect contextual factors, such as national cultures (Markus & Kitayama, 1991). These internal and rather stable characteristics of self-construal suggest a "self-identity" perspective to understand the process of knowledge sharing. This self-construal perspective refines the principle of reciprocity in explaining the process of knowledge sharing (Blau, 1964; Gouldner, 1960; Wang & Noe, 2010). It suggests that employees with different forms of self-construal may have quite distinct understandings of the reciprocal relationship between their organization and themselves. To encourage desirable workplace behavior, organizations need not only to

provide support but also to help employees to understand the purpose of the support as it is intended.

Practical Implications

From the perspective of social exchange, knowledge sharing can be understood as a way in which employees reciprocate the favor of their organization. To facilitate this social exchange process, we recommend that HR professionals should not only help their organization to institutionalize management support but also help employees to understand and perceive the support as it is intended.

For employees with high interdependent self-construal, HR professionals might consider emphasizing organizational support directly as a way to facilitate knowledge sharing effectively, such as creating a sharing culture and climate or by providing organizational incentives. For employees with high independent self-construal, in addition to providing organizational support, HR professionals need to take more care to portray the organizational support and connect it explicitly with employees’ personal growth. In this sense, it may help employees to understand better the support as it is intended, which in turn may facilitate more desired workplace behavior, such as knowledge sharing.

In addition, given the fact that interdependent self-construal is a key constituent of a collectivistic culture (Markus & Kitayama, 1991), HR professionals may gain some inspiration from this study regarding ways to encourage employees in collectivistic cultures to share their knowledge: it seems that employees in collectivist cultures are more responsive to the reciprocal relationship between employees and organizations. If employees feel that their organization cares about their well-being, they will reciprocate this favor by demonstrating the desired workplace behaviors, such as sharing their knowledge openly and voluntarily.

Limitations

At least three limitations of this study should be addressed. First, we did not distinguish different forms of knowledge in our study. Knowledge by nature exists in both tacit and explicit forms (Cabrera & Cabrera, 2002; Ipe, 2003). Explicit knowledge is easier to communicate and share among employees than tacit knowledge. The items tapping knowledge sharing in our study were mainly related to explicit knowledge. It might be the case that self-construal also plays a role in the way in which tacit knowledge is articulated. It would be interesting for future studies to link interdependent and independent self-construal with tacit knowledge articulation.

Second, we noticed some shortcomings in our research design. We collected the data on interdependent and independent self-construal in wave 1 and the data on perceived organizational support and knowledge sharing in wave 2. This arrangement was made for three reasons. First, we could not place all the measures in the same wave due to some practical limitations (item quota for each research team; see page 11 in the section on “procedure”). Second, our primary concern was to examine the moderating effect of self-construal. From the research design perspective, we needed to make sure that the data on self-construal and perceived organizational support were not artificially correlated with each other. By collecting these two types of data at different times, we empirically reduced the common method bias (Podsakoff, MacKenzie, Lee, & Podsakoff, 2003). However, the cost is that we could not claim a cause–effect relationship between perceived organizational support and knowledge sharing. Third, considering the fact that the time interval between the two data collection waves was over a year, employee may have left their team and even organization during such a long period. Using the data on perceived organizational support and knowledge sharing from the same wave avoided this adverse effect. Nevertheless, a refined design that allows the examination of the causal link between perceived organizational support and knowledge sharing is certainly needed for future research.

In total 178 participants dropped out of the research between the data collection in wave 1 and that in wave 2, which we considered to be the third limitation of this study. It raises a question about the extent to which our findings may be confounded by self-selection bias. To check whether self-selection was a serious bias in our findings, we compared the demographic variables of gender, age, tenure, and educational level between the participants who completed the questionnaire once with those who completed the questionnaire twice. We also compared the scores of independent and interdependent self-construal between the participants who remained and those who dropped out of the research. The results did not reveal any significant differences in these variables (the results of these analyses are available from the first author on request). These checks do not eliminate the self-selection bias, but at least they suggest that our findings cannot be overthrown by self-selection bias.

Conclusion

The findings of a 2-wave survey study of 145 teachers show that the relationship between perceived organizational support and knowledge sharing is influenced by employees' interdependent self-construal and independent self-construal. The relationship becomes more positive for employees with high interdependent self-construal. By contrast, the relationship becomes neither positive nor negative for employees with high independent self-construal. These findings support the idea that self-construal is a meaningful concept in understanding knowledge sharing. The moderating effects of interdependent and independent self-construal provide an alternative explanation for why organizational support sometimes fails to motivate employees to share their knowledge in the workplace.

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Table 1. *Factor Loadings, Construct Validity and Reliability of the Measures.*

Measurement Model: Interdependent and Independent Self-construals on the relationship between Perceived Organizational Support and Knowledge Sharing	Factor loadings on the latent construct ¹	Composite reliability	AVE ²	Model fit
Items Measuring Perceived Organizational Support (5 Items)		.91	.66	
1. The school cares about my opinions.	.92			
2. The school considers my goals and values.	.83			
3. The school is willing to extend itself in order to help me perform my job to the best of my ability.	.84			
4. The school cares about my general satisfaction at work.	.75			
5. Even if I did the best job possible, the school would fail to notice. (R)	-.71			
Items Measuring Interdependent Self-Construal (6 items)		.86	.53	$\chi^2 = 254.87$
1. It is important for my self-image for me to belong to a group.	.93			$df = 199$
2. In my thoughts I mostly focus on groups to which I belong.	.84			$GFI = .90$
3. It is very important for my identity to belong to a group.	.73			$TLI/NNFI = .95$
4. When I meet other people, I like them to know to which groups I belong.	.68			
5. When making important decisions I will be inclined to follow the judgment of the groups to which I belong.	.57			$RMSEA = .04$

6. I like to describe myself as a member of the groups to which I belong.	.52		
Items measuring Independent Self-Construal (6 items)		.73	.51
1. I like to describe myself in terms of my own unique qualities.	.88		
2. I think I am a unique individual with unique attributes.	.78		
3. I enjoy being different from others.	.75		
4. I am someone who is comfortable doing my own thing.	.68		
5. I think that I have much influence on my own identity.	.63		
6. It is important for me to do my own thing.	.45		
Items Measuring Knowledge Sharing (5 items)		.84	.52
1. I participate in the group discussion on the topics that are important to my job.	.86		
2. I share my problems about my classroom teaching with my colleagues.	.78		
3. I share the issues related to my development with my colleagues.	.70		
4. I share my knowledge and experiences with my colleagues on a regular basis.	.65		
5. I discuss with my colleagues about our criteria that we use to function well.	.56		

Note. ¹ Factor loadings here refer to standardized solutions. ² AVE = Average Variance Explained.

Table 2. Means, Standard Deviations and Correlations of the Relevant Variables (n =145)

	M	SD	1	2	3	4	5	6	7
1. Age	51	9.1							
2. Gender	.72	.45	.09						
3. Educational Level	2.1	.69	.22**	-.06					
4. Working Experience	6.1	1.87	.48**	.16	.14				
5. Perceived Organizational Support	3.53	.76	.02	.20*	-.19*	-.16			
6. Interdependent Self-Construal	3.06	.71	-.02	-.03	.01	.09	.24**		
7. Independent Self-Construal	3.67	.52	-.06	.07	.12	-.07	-.13	.14	
8. Knowledge Sharing	3.68	.59	.16	-.06	-.02	-.12	.26**	.17*	.03

Note. * $p < .05$; ** $p < .01$.

Gender (0 = female, 1 = male), Age (in years), Working Experience (1 = less than a half year, 2 = a half year, 3 = one year, 4 = two years, 5 = five years, 6 = ten years, 7 = twenty years, 8 = more than twenty years) and Educational Level (0 = something else, 1 = vocational education, 2 = bachelor degree, 3 = master degree and above).

Table 3: *The Effects of Perceived Organizational Support and Self-Construals on Knowledge Sharing*

Knowledge Sharing				
	Model 1	Model 2	Model 3	Model 4
<i>Controls:</i> Gender		-.07 (.11)	-.14 (.11)	-.11 (.10)
Educational level		.06 (.07)	-.01 (.06)	.04 (.07)
Age		.02* (.006)	.01* (.004)	.01* (.005)
<i>Predictors:</i> Perceived Organizational Support (POS)			.11* (.05)	.13** (.05)
Interdependent Self-Construal (InterSC)			.04 (.05)	.02 (.05)
Independent Self-Construal (IndSC)			.06 (.05)	.07 (.05)
<i>Interactions:</i> POS *InterSC				.10*(.05)
POS* IndSC				-.09* (.04)
<i>Variance at the individual level</i>	.81	.78	.82	.83
<i>Variance at the team level</i>	.19	.22	.18	.17
<i>Information criteria (-2 log likelihood)</i>	268.13	235.96	224.20	217.65
<i>Deviance differences ($\Delta\chi^2$)</i>	--	32.17**	11.76**	6.55*

Note. Number of Teams = 36, Number of Participants =145.
Numbers in the table refer to estimates; Numbers in the brackets refers to standardized errors. * $p < .05$; ** $p < .01$.

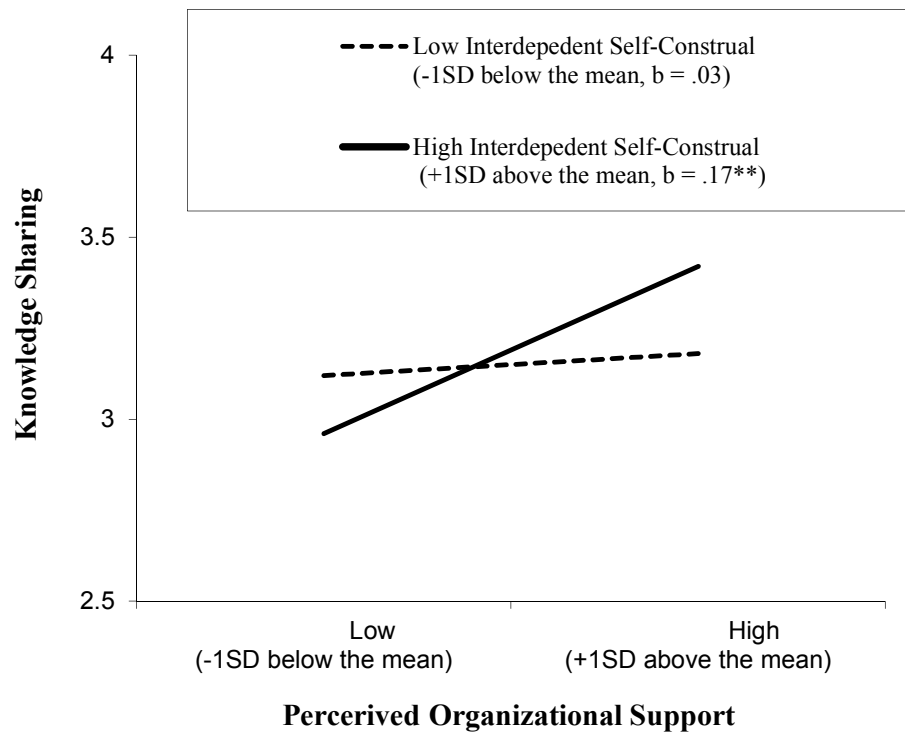
Figures.

Figure 1. The relationship between perceived organizational support and knowledge sharing across the low and high levels of interdependent self-construal.

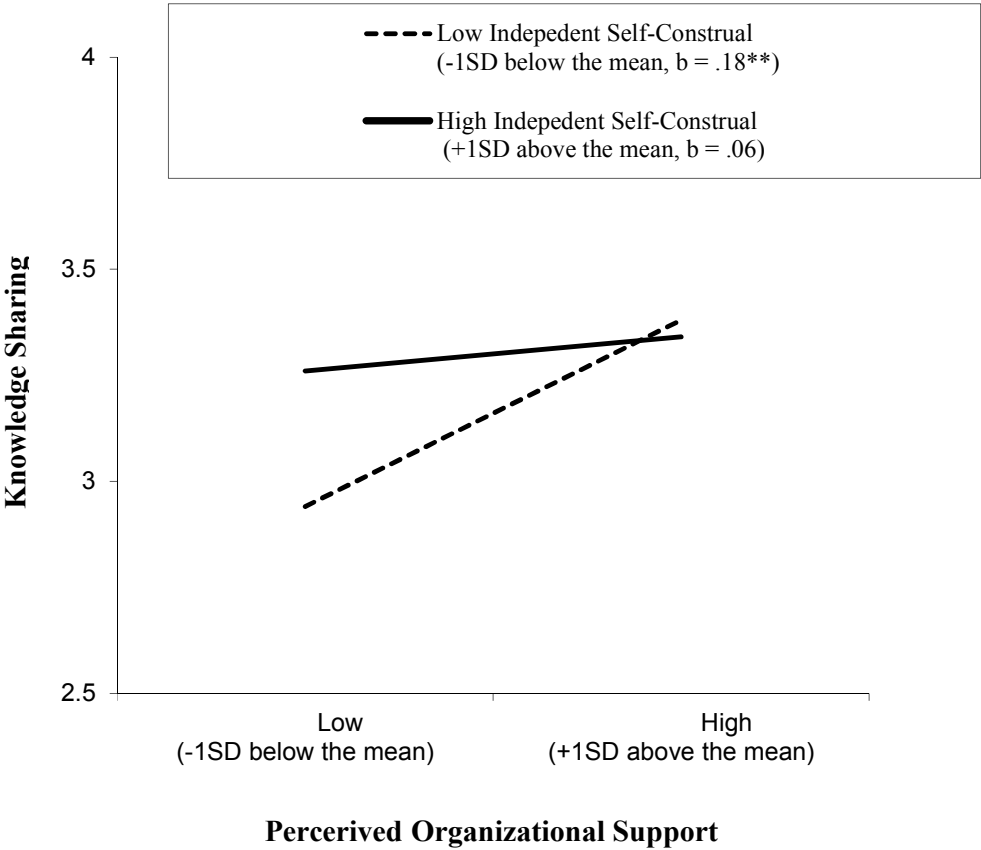


Figure 2. The relationship between perceived organizational support and knowledge sharing across the low and high levels of independent self-construal.